

C3 15. (New) The method of claim 1 further comprising the step of pre-storing the pre-determined list of radio channels by associating other radio transmitters based on position with a selected serving radio transmitter, wherein each radio transmitter in the network has an associated stored pre-determined list.

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REMARKS

1. Claims 1, 7 and 8 are amended. Claims 9-15 are new. The title is amended. A marked-up version of the rewritten title and claims is attached hereto.

2. The title has been amended to overcome the Examiner's objections.

3. Claims 1-8 are not anticipated by Munday (WO 96/35306) under 35 U.S.C. §102(b). In Applicants' invention, the position of a mobile communications device is determined. The data transmitted to the mobile communication from the cellular network identifies "a pre-determined list of radio channels corresponding to respective radio transmitters." Claim 1 has been amended to recite that the pre-determined list is determined beforehand on the basis of the approximate position of the mobile communication device and in accordance with geometrical requirements for position determination. This is not disclosed or suggested by Munday.

Munday deals with cellular radio location. In Munday, each base station holds information relating to itself and "six nearby base stations." (pg. 9, lines 15-17). Only four of the "nearby base stations" are used. (pg. 9, lines 16-18). The "four in question" are the ones "providing the strongest signal at the

mobile unit M." (pg. 9, lines 18-19). Although the Examiner equates the "information" being held by each base station in Munday with the "pre-determined" list claimed by Applicants, that is not the case.

In Munday, the four "nearby" base stations are the ones providing the strongest signals. This necessarily implies that the signals must be periodically sampled to determine which are the strongest. Signal strength can vary due to any one of a number of factors. This is not the same as what is claimed by Applicants.

In accordance with the present application, there is a pre-determined list for each geometrical location. Therefore, the same pre-determined list will be sent to a mobile host residing in the same location independently of time or weather or other conditions related to signal strength. The pre-determined list of the present application is generated beforehand for each geometrical position. The list takes into account geometrical requirements for position determination (see page 8, lines 4 to 5 of the present application). Therefore, it should be easier to get more accurate results by using the method of the present application. These geometrical aspects are not disclosed or suggested by Munday.

In Munday, the information regarding the four "nearby" base station depends on which stations we are providing the strongest signals. The "information" in Munday cannot be "pre-determined" as claimed by Applicants, but rather has to be determined based on signal strength, and, as is well known in the art, signal strength can vary for any one of a number of reasons.

For example, due to the selection mechanism of Munday, it is very clear that the base stations whose information is sent to the mobile unit M may vary depending, for example, on weather or other conditions. - In other words, according to the arrangement of Munday, it may well be that a different set of base stations would be used for position determination at a present moment in time than would have been used beforehand or even afterwards even if the mobile unit's location were exactly the same. So clearly, in Munday the list or information will vary, unlike Applicants' pre-determined list.

Therefore, since Munday does not disclose or suggest "a predetermined list" as recited by Applicants in claim 1, claim 1 is not anticipated by Munday under 35 U.S.C. §102(b). Claims 2-5 depend from claim 1 and should be allowable in view of at least the dependencies.

Claims 7 and 8 are apparatus claims directed to similar subject matter, each reciting the "predetermined list" discussed above. For similar reasons, claims 7 and 8 are also not anticipated by Munday under 35 U.S.C. §102(e).

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

A check in the amount of \$110 is enclosed for a one month extension of time. The Commissioner is hereby authorized to

charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,



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8/7/02  
Date

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#### CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date indicated below as first class mail in an envelope addressed to the Commissioner of Patents, Washington, D.C. 20231.

Date: 8/7/02

Signature: Denise Spaulding  
Person Making Deposit

Application No.: 09/231,066

**Marked Up Specification Replacement Section(s)**

Page 1, line 1, please delete the title and replace with the following:

--CELLULAR RADIO [POSITIONING] LOCATOR SYSTEM--

Application No.: 09/231,066

Marked Up Claim(s)

1. (Twice Amended) A method of determining the position of a mobile communications device within a cellular network, the method comprising the steps of:

transmitting data to the mobile communication device from the cellular network, said data identifying to the mobile communication device a pre-determined list of radio channels corresponding to respective radio transmitters of the cellular network, said pre-determined list [being] having been determined beforehand on the basis of the approximate position of the mobile communication device and in accordance with geometrical requirements for position determination; and

causing the mobile communication device to listen on said identified channels, or on other channels excluding said identified channels, and to determine from information transmitted over the listened to channels data values related to the relative geometry of the mobile communication device and the radio transmitters transmitting the listened to channels; and

determining the position of the mobile communication device using said determined data values.

7. (Twice Amended) Apparatus for determining the position of a mobile communications device within a cellular network, the apparatus comprising:

a base transceiver station for transmitting data to the mobile communication device from the cellular network, said data identifying to the mobile communication device a pre-determined list of radio channels corresponding to respective radio transmitters of the cellular network, said pre-determined list [being] having been determined on the basis of the approximate position of the mobile communication device and in accordance with geometrical requirements for position determination;

a radio receiver at the mobile communication device for listening on said identified channels, or on other channels excluding said identified channels;

first signal processing means coupled to said radio receiver for determining from information transmitted over the listened to channels data values related to the relative geometry of the mobile communication device and the radio transmitters transmitting the listened to channels; and

second signal processing means for computing the position of the mobile communication device using said determined data values.

8. (Twice Amended) A mobile communications device comprising:

a radio receiver for receiving data transmitted from a servicing base transceiver station of a cellular radio network, said data identifying to the mobile communication device a pre-determined list of radio channels corresponding to respective radio transmitters of the cellular network, and said pre-determined list [being] having been determined on the basis of the approximate position of the mobile communication device and in accordance with geometrical requirements for position determination, and said radio receiver being arranged to listen on said identified channels, or on other channels excluding said identified channels;

first signal processing means coupled to said receiver for determining from information transmitted over the listened to channels data values related to the relative geometry of the mobile communication device and the radio transmitters transmitting the listened to channels; and

a radio transmitter for transmitting said determined data values to said serving base transceiver station.